

[0003] Patent Literature 1: Japanese Laid-open
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SUMMARY OF INVENTION

TECHNICAL PROBLEM

[0004] However, there is also an anticipated case where though a partial image in an image displayed by a test object program and a partial image in an image displayed by a correct program accord, their display positions are different. In such a case, it is desired in some cases to determine that the program normally runs by regarding the partial images as according.

[0005] Embodiments of the present invention have been made in consideration of the above problem, and seek to appropriately execute verification of a program including a description relating to drawing of an image.

SOLUTION TO PROBLEM

[0006] A first aspect of the present invention provides an information processing apparatus comprising:

- a first acquirer configured to acquire a first image displayed on a display in response to execution of an object program being a test object;

- an object image extractor configured to inquire of a browser a position of an object image in the first image, based on a first image identifier identifying the object image, the object image

corresponding to a correct image, specify a position of a region where the object image is actually drawn by the browser, based on a response from the browser, the response including the position of the region, and extract the object image at the specified position;

a determiner configured to determine whether or not the object image and the correct image accord; and

a display processor configured to display a result of determination by the determiner.

[0006a] A second aspect of the present invention provides an information processing apparatus comprising:

a first acquirer configured to acquire a first image displayed on a display in response to execution of an object program being a test object;

an object image extractor configured to inquire of a browser positions of a plurality of object images in the first image, based on attribute information indicating a class common to the plurality of object images, the object images corresponding to a correct image, specify each position of a region where each of the plurality of object images is actually drawn by the browser, based on a response from the browser, the response including each position of the region, and extract the object image at specified each position,

a determiner configured to determine whether or not each of a plurality of the object images and each of a plurality of the correct images accord; and

a display processor configured to display a result of determination by the determiner.

[0006b] A third aspect of the present invention provides an information processing method executed by an information processing apparatus, the information processing method comprising:

a first acquisition step of acquiring a first image displayed on a display in response to execution of an object program being a test object;

an object image extraction step of inquiring of a browser a position of an object image in the first image, based on a first image identifier identifying the object image, the object image corresponding to a correct image, specifying a position of a region where the object image is actually drawn by the browser, based on a response from the browser, the response including the position of the region, and extracting the object image at the specified position;

a determination step of determining whether or not the object image and the correct image accord; and

a display processing step of displaying a result of determination at the determination step.

[0006c] A fourth aspect of the present invention provides a computer readable non-transitory recording medium with a program causing a computer to execute:

a first acquirer configured to acquire a first image displayed on a display in response to execution of an object program being a test object;

an object image extractor configured to inquire of a browser a position of an object image in the first image, based on a first image identifier identifying the object image, the object image corresponding to a correct image, specify a position of a region where the object image is actually drawn by the browser, based on a response from the browser, the response including the position of the region, and extract the object image at the specified position;

a determiner configured to determine whether or not the object image and the correct image accord; and

a display processor configured to display a result of determination by the determiner.

[0006d] There is also disclosed an information processing apparatus including: a first acquirer configured to acquire a first image displayed on a display in response to

CLAIMS

[Claim 1] An information processing apparatus comprising:

a first acquirer configured to acquire a first image displayed on a display in response to execution of an object program being a test object;

an object image extractor configured to inquire of a browser a position of an object image in the first image, based on a first image identifier identifying the object image, the object image corresponding to a correct image, specify a position of a region where the object image is actually drawn by the browser, based on a response from the browser, the response including the position of the region, and extract the object image at the specified position;

a determiner configured to determine whether or not the object image and the correct image accord; and

a display processor configured to display a result of determination by the determiner.

[Claim 2] The information processing apparatus according to claim 1, further comprising:

a second acquirer configured to acquire a second image displayed on the display in response to execution of a correct program; and

a correct image extractor configured to extract a partial image as a correct image from the second image, based on specification information specifying the partial image of the second image.

[Claim 3] The information processing apparatus according to claim 1 or 2, wherein the object image extractor extracts a partial image drawn according to a description as the object image, the description being associated with the first image identifier in the object program.

[Claim 4] The information processing apparatus according to claim 2, wherein:

the specification information is a second image identifier being information identifying the correct image included in the second image; and

the correct image extractor extracts a partial image drawn according to a description as the correct image, the description being associated with the second image identifier in the correct program.

[Claim 5] An information processing apparatus comprising:

a first acquirer configured to acquire a first image displayed on a display in response to execution of an object program being a test object;

an object image extractor configured to inquire of a browser positions of a plurality of object images in the first image, based on attribute information indicating a class common to the plurality of object images, the object images corresponding to a correct image, specify each position of a region where each of the plurality of object images is actually drawn by the browser,

based on a response from the browser, the response including each position of the region, and extract the object image at specified each position,

a determiner configured to determine whether or not each of a plurality of the object images and each of a plurality of the correct images accord; and

a display processor configured to display a result of determination by the determiner.

[Claim 6] The information processing apparatus according to any one of claims 1 to 5, wherein the determiner determines whether or not the object image and the correct image accord, based on a result of comparison between pixels of the object image and the correct image.

[Claim 7] The information processing apparatus according to any one of claims 1 to 5, wherein the determiner determines whether or not the object image and the correct image accord, based on a result of comparison between an edge detected from the object image and an edge detected from the correct image.

[Claim 8] The information processing apparatus according to any one of claims 1 to 7, wherein the determiner determines that the object image and the correct image accord when a part of the object image and the correct image accord.

[Claim 9] The information processing apparatus according to any one of claims 1 to 7, wherein the determiner determines that the object image and the correct image accord when a region except a part of the object image and a region except a part of the correct image accord.

[Claim 10] The information processing apparatus according to any one of claims 1 to 5, wherein the determiner determines whether or not each of a plurality of object images and a correct image accord, according to a different determination condition, the different determination condition being set in advance for each of the plurality of object images.

[Claim 11] An information processing method executed by an information processing apparatus, the information processing method comprising:

- a first acquisition step of acquiring a first image displayed on a display in response to execution of an object program being a test object;

- an object image extraction step of inquiring of a browser a position of an object image in the first image, based on a first image identifier identifying the object image, the object image corresponding to a correct image, specifying a position of a region where the object image is actually drawn by the browser, based on a response from the browser, the response including the position of the region, and extracting the object image at the specified position;

a determination step of determining whether or not the object image and the correct image accord;
and

a display processing step of displaying a result of determination at the determination step.

[Claim 12] A computer readable non-transitory recording medium with a program causing a computer to execute:

a first acquirer configured to acquire a first image displayed on a display in response to execution of an object program being a test object;

an object image extractor configured to inquire of a browser a position of an object image in the first image, based on a first image identifier identifying the object image, the object image corresponding to a correct image, specify a position of a region where the object image is actually drawn by the browser, based on a response from the browser, the response including the position of the region, and extract the object image at the specified position;

a determiner configured to determine whether or not the object image and the correct image accord;
and

a display processor configured to display a result of determination by the determiner.